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Ronald L. Grudziecki, Esq.
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER
MOORE, IAN N

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-17 and 20_ is/are rejected.

7)☒ Claim(s) _18 and 19_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _5_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because descriptive text labels are not shown. A proposed

    drawing correction or corrected drawings are required in reply to the Office action to avoid

    abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-

    (d). However, the reference to foreign priority Application No. 9904841-5 at the first

    sentence of the specification is **not** required and must be cancelled. See MPEP 608.01

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to

    particularly point out and distinctly claim the subject matter which applicant regards as the

    invention. Claim 13 recites, "...**a regular expression in a wildcard expression**..." in line 2.

    It is unclear what is the regular expression in a wildcard expressing and how matching is

    performed based upon a regular expression in a wildcard expression.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoke

(U.S. 6,701,437) in view of Wesinger (U.S. 5,898,830).

Regarding claims 1 and 20, Hoke'437 discloses a device **(see FIG. 1, a combined**

system of VPN unit 115 and the router 114) which performs the method arranged to

establish a connection between a first computer **(see FIG. 1, end stations 111-113)** of a first

computer network **(see FIG. 1, LAN 110)** and a resource **(see FIG. 1, end stations 121-**

123,171-173, 181-182, or 131-132) of a second computer network **(see FIG. 1, LAN**

130,120, or 170) via a third network **(see FIG. 1, Public Network 100)**, along a route

through the device having an interface to the first computer network **(see FIG. 1, the**

combined system of VPN unit and router 114 have an interface to LAN 110), and

through a gateway **(see FIG. 1, a combined system of VPN unit 125/135 and the router**

124/134) intervening between the second computer network and the third network, the

resource belonging to the domain of the gateway (see FIG. 1, **end stations 121-123,171-173,**

181-182, or 131-132 are in the domain of LAN 120, or 170) wherein the device comprises:

means arranged to configure a tunnel from the device to the gateway **(see FIG. 3,**

Step 350,160; see col. 11, lines 5-32; note that VPN unit provisions/configures a tunnel

toward the combined a combined system of VPN unit 125/135 and the router 124/134),

means arranged to map the tunnel (see **FIG. 2, Tunnel 230**) with a requester (see

FIG. 1, ES112, end station 112) and a domain name of the gateway (see **FIG. 2,**

Destination 234 is the domain name/address of VPN unit 125; see col. 9, lines 19-34;

note that a tunnel is arranged/provisioned to map/encapsulate with the end station 112

and the name/address of the remote VPN unit 125),

means arranged to receive a request, issued by the requester, via the interface for a

connection from the first computer to the resource by specifying a name of the resource (**see**

FIG. 2, ES131, the name/address of the end station 131; see FIG. 3, steps 300, 310, 330;

see col. 10, lines 44-54, col. 11, lines 6-12; note that VPN unit receives a packet which

requests to route by the source end station computer (i.e. requester) via the LAN

interface connection, and the packet specifies a destination address/name of end

station),

means arranged to use a rule for matching the name of the resource with the gateway

(**see FIG. 2, steps 340,350; see col. 11, lines 11-19, 24-28; note that the VPN unit**

performs/uses the VPN policy rules to translates/matches/identifies between destination

end station and the appropriate destination VPN unit),

means arranged to map the name of the resource to the tunnel (see **FIG. 2, the**

destination name/address of ES131; see col. 9, lines 19-34; note that a tunnel 230 is

arranged/provisioned to map/encapsulate the destination name/address of the end

station),

means arranged to return a temporary IP number to the first computer (see **col. 12,**

lines 44-52; note that since source end station utilizes the client pool IP address/number

(i.e. temporary IP address) to communicate with the remote end station, the VPN unit

must have informed/returned the client pool IP address/number to the source end

station),

means arranged to map the temporary IP number to the name of the resource (**see**

FIG. 5, steps 510,512,514,516,518; see col. 12, lines 32-55, col. 13, lines 1-5,21-49; note

that the client pool IP address/number is mapped/assigned dynamically/temporarily for

a period of time (i.e. temporary IP address) to the remote/destination address/name),

means arranged to cooperate with the gateway administrating the handling of data

packets such that data packets addressed by the first computer to the temporary IP number,

arriving through the tunnel at the gateway, are routed to the resource (**see FIG. 4, steps 400,**

410, 430, 40, 450, 460; see FIG. 5, steps 506, 508, 510; see col. 11, lines 33-39, 65-67, see

col. 12, lines 1-19; see col. 13, lines 22-35; note the remote VPN unit performs as a

gateway to handle/manage the arrived encapsulated packets via the tunnel so that the

encapsulated packets addressed by the source end station to the client pool IP address

are routed to the destination end station),

means arranged to cooperate with the gateway administrating the handling of data

packets such that data packets arriving from the resource destined to the first computer, are at

the gateway routed through the tunnel to the first computer via the device (**see FIG. 3, steps**

300,310,330,340,350,360; see col. 10, lines 43-59, col. 11, lines 5, lines 6-33; see FIG. 4,

steps 400, 410, 430, 40, 450, 460; see col. 11, lines 33-39, 65-67, see col. 12, lines 1-19;

note the remote VPN unit performs as a gateway to handle/manage the packets

arriving from the source end terminal destined to the destination end terminal are

encapsulated and routed through the tunnel to the source end station via VPN unit).

Hoke'437 does not explicitly disclose means arranged to return a temporary IP

number to the first computer **in answer to the request.**

However, the above-mentioned claimed limitations are taught by Wesinger'830. In

particular, Wesinger'830 teaches a device **(see FIG. 1, a combined system of Firewall and**

virtual host 105/107) means arranged to receive a request, issued by the requester **(see FIG.**

1, Client C), via the interface for a connection **(see FIG. 1, Connection via network**

segment 102) from the first computer **(see FIG. 1, Client Computer C)** to the resource **(see**

FIG. 1, host computer D) by specifying a name of the resource **(see col. 9, lines 15-17; note**

that client C initiates/requests a connection to host D by using the name/address of host

D),

means arranged to return a temporary IP number (see FIG. 1, Virtual Host 105b) to

the first computer in answer to the request **(see col. 7, lines 20-24; see col. 12, lines 28-38;**

note that the combined system of firewall and virtual host returns the

virtual/temporary host IP address (i.e. temporary IP number) to the client C in

response/answer to the request),

means arranged to map the temporary IP number to the name of the resource **(see col.**

10, lines 50-65; note that virtual/temporary host IP address is mapped to the name of

the remote host name),

means arranged to cooperate with the gateway **(see FIG. 1, a combined system of**

Firewall and virtual host 155/157) administrating the handling of data packets such that

data packets addressed by the first computer to the temporary IP number, arriving through at

the gateway, are routed to the resource (**see col. 9, lines 25-29, see col. 10, lines 61-60, see**

col. 12, lines 9-23, see col. 13, lines 25-35; note that the combined system of firewall and

virtual host performs as a gateway to handle/manage the arrived packets by decryption

and re-mapping so that the packets addressed by the client station to the host

name/address are routed to the host station accordingly).

In view of this, having the system of Hoke'437 and then given the teaching of

Wesinger'830, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to modify the system of Hoke'437, by providing a temporary/virtual

host address in response to a request, as taught by Wesinger'830. The motivation to combine

is to obtain the advantages/benefits taught by Wesinger'830 since Wesinger'830 states at col.

3, line 48-53 that such modification would provide a firewall that achieves both maximum

network security and maximum user convenience.

Regarding claim 2, the combined system of Hoke'437 and Wesinger'830 discloses

all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,

and Hoke'437 further teaches transmitting a message with the mapping of the temporary IP

number to the gateway by means of the tunnel (**see col. 9, lines 19-34; note that a tunnel is**

arranged/provisioned to map/encapsulate with the name/address of the remote end

station and remote VPN unit name/address. Also, see col. 12, lines 32-55, col. 13, lines 1-

5,21-49; note that the client pool IP address/number is mapped/assigned

dynamically/temporarily) to the remote/destination address/name. Thus, it is clear that

a tunnel message with client pool IP address/number of the remote end station and
remote VPN unit address/name is transmitted via the tunneling). Wesinger'830 also
teaches transmitting a message with the mapping of the temporary IP number to the gateway
(see col. 9, lines 5-25, see col. 10, lines 49-65; note that during the DNS queries, a
message is transmitted with the mapping of virtual host address/name/number between
the combined system of virtual hosts and the firewalls).

Regarding claim 3, the combined system of Hoke'437 and Wesinger'830 discloses
all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,
and Hoke'437 further teaches directing the intermediate system to translate, source addresses
of data packets addressed to the temporary IP number, to be sent through the tunnel (see col.
12, lines 43-62; see col. 13, lines 22-35; note the VPN unit maps/translates the source
addresses of the end stations addressed to the remote client pool IP/number to send
through the tunnel). Wesinger'830 also teaches directing the intermediate system to
translate source addresses of data packets addressed to the temporary IP number (see col. 9,
lines 15-30, col. 10, lines 52-54; note that the combined system of firewall and virtual
host translates/maps the source addresses of packets addressed to the client
virtual/temporary IP host address/number).

Regarding claim 4, the combined system of Hoke'437 and Wesinger'830 discloses
all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,
and Hoke'437 further teaches directing the intermediate system to translate destination

addresses of data packets addressed to the temporary IP number to be sent through the tunnel

(see col. 12, lines 43-62; see col. 13, lines 22-35; note the VPN unit 115 maps/translates

the destination addresses of the end stations addressed to the remote client pool

IP/number to send through the tunnel).

Hoke'437 does not explicitly discloses translating by utilizing the DNS function.

However, the above-mentioned claimed limitations are taught by Wesinger'830. In

particular, Wesinger'830 also teaches directing the intermediate system to translate,

destination addresses of data packets addressed to the temporary IP number, by means of at

least a partial DNS function in the intermediate system (see col. 9, lines 15-30, col. 10, lines

52-54; note that the combined system of firewall and virtual host translates/maps, the

destination addresses of packets addressed to the client virtual/temporary IP host

address/number, by utilizing DNS/DDNS table/function).

In view of this, having the system of Hoke'437 and then given the teaching of

Wesinger'830, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to modify the system of Wesinger'830, by utilizing DNS

table/function to perform address translation, as taught by Wesinger'830, for the same

motivation as stated above in Claim 1.

Regarding claim 5, the combined system of Hoke'437 and Wesinger'830 discloses

all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,

and Hoke'437 further teaches the gateway translating source addresses of data packets

arriving through the tunnel addressed to the temporary IP number and routing these data

packets to the resource (**see FIG. 5, step 510; see col. 13, lines 22-35; note the VPN unit maps/translates/changes the real source addresses arriving via the tunnel addressed to the client pool IP address/number, and routes towards the end station.** Wesinger'830 also teaches the gateway translating source addresses of data packets addressed to the temporary IP number and routing these data packets to the resource (**see col. 9, lines 25-29, see col. 10, lines 61-60, see col. 12, lines 9-23, see col. 13, lines 25-35; note that the combined system of firewall and virtual host translates/maps the source addresses addressed to the virtual/temporary host IP address/number, and routes towards the host/client accordingly**).

Regarding claim 6, the combined system of Hoke'437 and Wesinger'830 discloses all aspects of the claimed invention set forth in the rejection of Claim 1 as described above, and Hoke'437 further teaches the gateway translating destination addresses of data packets arriving through the tunnel addressed to the temporary IP number and routing these data packets to the resource (**see FIG. 5, step 510; see col. 13, lines 22-35; note the VPN unit 115 maps/translates/changes the real destination addresses arriving via the tunnel addressed to the client pool IP address/number, and routes towards the end station.** Wesinger'830 also teaches the gateway translating destination addresses of data packets addressed to the temporary IP number and routing these data packets to the resource (**see col. 9, lines 25-29, see col. 10, lines 61-60, see col. 12, lines 9-23, see col. 13, lines 25-35; note that the combined system of firewall and virtual host translates/maps the destination**

addresses addressed to the virtual/temporary host IP address/number, and routes

towards the host/client accordingly).

Regarding claim 7, the combined system of Hoke'437 and Wesinger'830 discloses

all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,

and Hoke'437 further teaches the gateway translating source and destination addresses of data

packets arriving from the resource destined to the first computer (**see FIG. 2, Source and**

destination addresses of packets 240 are translated to VPN network addresses), and

routing these data packets through the tunnel to the first computer via the intermediate

system (**see FIG. 3, steps 300,310,330,340,350,360; see col. 10, lines 43-59, col. 11, lines**

5, lines 6-33; see FIG. 4, steps 400, 410, 430, 40, 450, 460; see col. 11, lines 33-39, 65-67,

see col. 12, lines 1-19; note the remote VPN unit translates the addresses of the packets,

arriving from the remote end terminal destined the source end terminal, to the network

addresses and routed through the tunnel to the source end station via VPN unit).

Regarding claim 8, the combined system of Hoke'437 and Wesinger'830 discloses

all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,

and Hoke'437 further teaches directing the intermediate system to translate source and

destination addresses of data packets (**see FIG. 2, Source and destination addresses of**

packets 240 are translated from VPN network addresses), arriving from the resource via

the tunnel destined to the first computer (**see FIG. 3, steps 300,310,330,340,350,360; see**

col. 10, lines 43-59, col. 11, lines 5, lines 6-33; see FIG. 4, steps 400, 410, 430, 40, 450,

460; see col. 11, lines 33-39, 65-67, see col. 12, lines 1-19; note the VPN unit translates the source and destination addresses of the packets from the VPN network addresses arriving from the remote end terminal via the tunnel destined to the source terminal).

Regarding claim 9, the combined system of Hoke'437 and Wesinger'830 discloses all aspects of the claimed invention set forth in the rejection of Claim 1 as described above, and Hoke'437 further teaches wherein the third network is a telecommunications network **(see FIG. 1, public network 100; see col. 6, lines 50-54; note the public network is the telecommunication network).**

Regarding claim 10, the combined system of Hoke'437 and Wesinger'830 discloses all aspects of the claimed invention set forth in the rejection of Claim 1 as described above, and Hoke'437 further teaches wherein the third network is Internet **(see FIG. 1, public network 100; see col. 6, lines 50-54; note the public network is the Internet).**

Regarding claim 11, the combined system of Hoke'437 and Wesinger'830 discloses all aspects of the claimed invention set forth in the rejection of Claim 1 as described above, and Hoke'437 further teaches wherein the rule for matching the name of the resource with the gateway is based on a mapping **(see FIG. 2, steps 340,350; see col. 11, lines 11-19, 24-28; see col. 8, lines 37-44; note that the VPN unit performs/uses the VPN policy rules to translate/map/identify between destination end station and the appropriate destination VPN unit).**

Regarding claim 12, the combined system of Hoke'437 and Wesinger'830 discloses all aspects of the claimed invention set forth in the rejection of Claim 1 as described above, and Hoke'437 further teaches wherein the rule for matching the name of the resource with the gateway is based on a list of hosts (see **FIG. 2, steps 340,350; see col. 11, lines 11-19, 24-28; see col. 8, lines 37-44; note that the VPN unit performs/uses the VPN policy rules to translate/map/identify between destination end station and the appropriate destination VPN unit and the translation/mapping is based upon lookup table which contains list of end terminals).**

Regarding claim 14, the combined system of Hoke'437 and Wesinger'830 discloses all aspects of the claimed invention set forth in the rejection of Claim 1 as described above, and Hoke'437 further teaches wherein the rule for matching the name of the resource with the gateway is based on matching a domain name of the name of the resource with the domain name of the gateway (see **FIG. 2, steps 340,350; see col. 11, lines 11-19, 24-28; see col. 8, lines 37-44; note that the VPN unit performs/uses the VPN policy rules to translate/map/identify between VPN network name/address of the name/address destination end station and the appropriate destination VPN unit).** Wesinger'830 discloses wherein matching a domain name of the name of the resource with the domain name of the gateway (see **col. 9, lines 4-14; col. 10, lines 46-65; note that domain name/address of the name/address of the client is matched/mapped to the domain name of the firewall).**

Regarding claim 15, the combined system of Hoke'437 and Wesinger'830 discloses

all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,

and Hoke'437 further teaches authenticating the requester at the first computer for access to

the tunnel (see col. 2, lines 46-55; see col. 8, lines 37-44; note that the VPN unit

authenticates the end station (i.e. requester) by utilizing the lookup table in order to

access the tunnel).

Regarding claim 16, the combined system of Hoke'437 and Wesinger'830 discloses

all aspects of the claimed invention set forth in the rejection of Claim 1 as described above,

and Hoke'437 further teaches wherein the name of the resource corresponds to a second

computer (see FIG. 1, computer Terminals 121-123, 181-182, or 131-132) within the

second computer network, the second computer belonging to the domain of the gateway (see

FIG. 1, domain name/address of LAN 120, 170, or LAN 130) and comprising the resource

(see FIG. 1, computer Terminals 121-123, 181-182, or 131-132 comprises the resources);

see col. 5, lines 65 to col. 6, lines 20.

Regarding claim 17, Hoke'437 discloses wherein the gateway administrating the

handling of data packets such that data packets addressed by the first computer to the

temporary IP number, arriving through the tunnel, are routed to the resource set forth in the

rejection of Claim 1 and 16 as described above. Hoke'437 further discloses resources residing

on the second computer (**see FIG. 1, computer Terminals 121-123, 181-182, or 131-132
comprises the resources); see col. 5, lines 65 to col. 6, lines 20.**

Allowable Subject Matter

5. Claims 18 and 19 are objected to as being dependent upon a rejected base claim, but would
be allowable if rewritten in independent form including all of the limitations of the base
claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ian N Moore whose telephone number is 703-605-1531. The

examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on 703-305-4798. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM
5/6/04

DOUGLAS OLMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600